

Dart Hawkesbury 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada Tel (613) 632-5200

# **Purchasing Receipts**

PO No	Supplier	Item No	Rei No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Container No	Status	Receive Date	Price/Unit	Aging Days	
	MEC002- VU	8	2	Net 30		7075-T6 Sheet 0.250** Thick Plate X 1*** Wide: MATERIAL: 7775-T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS-0045 OR ASTM B209 receive ft				12		12		S051414	Stock	3/14/2018	\$ 9.92 / ft	0	

Plex 3/14/2018 1.28 PM Dart Dubois Pascal



Dart Aerospace Ltd. 1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada

# **PURCHASE ORDER** PO038929

Tel (613) 632-5200

MEC002-VU Supplier:

Metaux Castle

P.O. Box 4090 Stn A

**Toronto** ON

M5W OE9 Canada

1270 Aberdeen Street

Hawkesbury

ON

Ship To:

K6A 1K7 Canada Phone: 613-632-5200 PO No:

PO038929

PO Date: Due Date: 2/1/18 2/26/18

**Purchase Order** Revision:

**Revision Date:** Ship-To Contact:

Lavoie, ChantalPhone:

clavoie@dartaero.com

Via:

Ground

Pymt Terms:

Net 30

Freight Terms:

**Special Comments:** 

### Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
8	M7075T6S1.000X0.250		7075-T6 Sheet 0.250" Thick Plate X 1" Wide: MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft	Forecast	2/23/18	12 ft	12		DAS 11 9-89 AR 14 2018	
				Firmed	2/26/18	12 ft	0 ft	12 ft	\$9.92/ft	\$119.04
				Su	b Total:	24	0	24		\$238.08

**Grand Total:** 

\$238.08

# **Order Notes**

**Procurement Quality Clauses** 

A005 right of entry

A012 chemical and physical test report

A016 personnel qualification

A017 raw material identification (as applicable)

A026 certification of material conformance

A041 quality management system

A042 dart notification by supplier

A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 3/14/18 8:04 AM dart.lavoie.chantal

# INTERORG TRANSFER PACKING SLIP/ CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3512763

Ship From:	So	Sold To:	Ship To:	Deliver To:	
A. M. CASTLE & CO.		DART AEROSPACE LTD	A. M. CASTLE & CO.	DART AEROSPACE LTD	
3050 S HYDRAULIC		1270 ABERDEEN	2150 ARGENTIA ROAD	1270 ABERDEEN	
WICHITA, KS 67216		HAWKESBURY, ON K6A 1K7	MISSISSAUGA, ON	HAWKESBURY, ON	
USA	CA		L5N 2K7 CAN	K6A 1K7 CA	
Date Shipped	F.O.B.	Freight Terms	Carrier	BOL No	
14-FEB-18	ORIGIN	Prepaid	ABF	3512763-2	

Final Destination Branch - TOR

Shipment Details

Order No	Line No	0	Item No	Descr	Description			
5033934	2		750023.MO	CUT2 CUT2 PLATE Email	0.2500.PL.7075.T651.ALUMINUM.48.5000.144.5000 CUT 2SIDED TO 1 IN (	JMINUM.4: .1250/00 TIONS: AM avoie@dart	8.5000.144.50 00 IN) X 72 IN 1S-QQ-A-250/ taero.com	00 I () - ALUMINUM 12
Purchase Order No	ler No	Part N	Part Number	Orden	Ordered Otty		AMONGO OTY	ty
38929				\ 2.00-PCS	CS FC	2	W 2.00 PCS	
Details	ALL P. ALL M Email I END U	APERW ATERIA P/s and ISER: D	ALL PAPERWORK MUST FOLLOW ORDER / ALL MATERIAL MUST HAVE IDENTIFYING WE Email P/s and certs to: clavoie@dartaero.comEND USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS	F FOLLOW ORDER / CI AVE IDENTIFYING MAE avoie @dartaero.com SPACE L AIRCRAFT PARTS	ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE ATTIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S Email P/s and certs to: clavoie @dartaero.com END USER: DART AEROSPACE END USER: COMMERCIAL AIRCRAFT PARTS	#'S	ATTIME OF D	<b>É</b> LIVERY
Delivery No.	Mill/Source		Heat Number	Mech Id	PCS	(idth (IN)	Width (IN) Length (IN)	Shipped Qty(LBS)
121629084	KAISER ALUMINUM		195976B6		2			3.7960

These items are controlled by the U.S. Government and authorized for export and authorized for export and recountry of ultimate destination for use by the ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. taw and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Date Printed: 14-FEB-2018 02:53:32 PM

Mison Than Jaw

Reviewed by Authorized Castle Metals Representative:

Name:

Date:

SHIP TO:

A M CASTLE & CO 3050 SOUTH HYDRAULIC WICHITA, KS 67216

AISER ALUMINUM

Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

# CERTIFIED TEST REPORT

Serial Number 4438311

SOLD TO:

AM CASTLE & CO-SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

CUSTOMER PO NUMB	ER: W	ORK PACKAGE:	750023	PART NUMBER:	1	3731/3	GOV'T CONTRA	CT NUMBER:	
KAISER ORDER NO: 1222864-1		SHIP DATE:	7075	N C	MPER:	Sawed Pla	17	, le	
WEIGHT SHIPPED: 1080 LB	6 PCS E		3216	0.2500 IN ( 8.35	500 MM)	DIAMETER/WID 48.500 IN (123		тн: 500 IN	(3670.3 MM)

MHU 2052582: LOT 195976B6: 6 pieces;

**Certified Specifications** 

AMS 4045/RevL CMMP 025/RevV AMS-QQ-A-250/12/RevA

ASTM B 209/Rev14

Test Code: 1510

Lot: 195976B6

Cast 302

Drop 11

**Test Results** 

Ingot 2

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:

Temper

T651

Dir / # Tests LT / 2 (Min:Max)

Ultimate KSI (MPA) 87.8:89.0

(605:614)

Yield KSI (MPA) 78.1:78.9

(538:544)

Elongation %

11.1:11.8

(ASTM E1251)

ZR OTHER MG CR ZN TI Chemistry: SI FE CU MN 5.7 0.02 0.01 0.01 TOT 0.06 0.07 0.13 1.5 0.02 2.6 0.19 Actual(wt%)

**ALLOY LIMITS** 

FE CU MN MG CR ZN TI ZR OTHER MAX SI 7075 0.00 0.00 EACH 0.05 0.00 2.1 0.18 5.1 0.00 MIN(WE%) 0.00 0.00 1.2 TOT 0.15 MAXIW1%) 0.40 0.50 2.0 0.30 2.9 0.28 6.1 0.20 0.05 0.05

Aluminum Remainder

ORDER COMMENTS AMC CA-15409 R 3





1119

Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

# CERTIFIED TEST REPORT

Serial Number 4438311

# CERTIFICATION

- Kaiser Aluminum, Trentwood Works, is 4SO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

  " has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
  All test equipment and measuring devices are cabinated and certified in accordance applicable specifications. For material thicknesses outside specification fimits, mechanical properties are as shown hardin and chamical disproposition makes specification requirements. Apported elongation values have been measured as slongation at fracture.

  " was noted in the United States of America or a qualifying country per DFARS 255.272-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 255.272-1(b).

was moled in the United States of America of a qualitying country per private demonstration of the United States of America of a qualitying country per private demonstration of the United States of Asha States applicable.

\* has been thermally processed in compliance with AMS 2772, where applicable.

\* is in compliance with Bolis 2, European Union Directive 2011/65/EU.

\* is in compliance with Bolis 2, European Union Directive 2011/65/EU.

\* is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 3907/2008, and Kaiser regularly monitors these regulations for updates.

\* is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.

\* is free of weld repair,

\* invoits the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Text reports shall not be reproduced except in Any warranty is limited to that shown on Kaiser Aluminum laboratory. The recording of false, facilities or fraudulent statements or other certificate may be punished as a falony under feder (1995).

\*\*Without the written approval of the Kaiser Aluminum laboratory. The recording of false, facilities or fraudulent statements or other certificate may be punished as a falony under feder (1995).

ferrements.

Page 2 of 2

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

# CERTIFICATE OF CONFORMANCE INTERORG TRANSFER PACKING SLIP/

Page 1 of 1

Shipment No:3512763

Shin From:	Sold To:	.0:	Ship To:	Deliver To:
A. M. CASTLE & CO. 3050 S HYDRAULIC WICHITA, KS 67216 USA		NORANCO - PICKERING DIVISION 1842 CLEMENTS ROAD PICKERING, ON L1W 3R8 CA	A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN	NORANCO - PICKERING DIVISION 1842 CLEMENTS ROAD PICKERING, ON L1W 3R8 CA
Date Shipped	FO.B.	Freight Terms	Carrier	BOL No
14-FFB-18	ORIGIN	Prepaid	ABF	3512763-2

Shipment Details	iils		Final	Final Destination Branch - TOR	ch - TOR		
Order No	Line No	Item No	Descr	Description			
1112081275	-		. 0.1600 SPE(	0.1600.SH.2024.O.ALUMINUM.BARE.48.0000.144.0000 SPECIFICATIONS: AMS 4035,AMS QQ-A-250/4,ASTM	MINUM.BAR 1S 4035,AM	E.48.0000.144 S QQ-A-250/4,	SPECIFICATIONS: AMS 4035, AMS QQ-A-250/4, ASTM B209, CMMP
Purchase Order No	or No	Part Number	Order	Ordered Qty		Invoice Qty	ty
PO-0045208		YOUR ITEM NUMBER: RN-05010-48X144	1.00 PCS	CS		1.00 PCS	
Details							
Delivery No.	Mill/Source	Heat Number	Mech Id	PCS	Width (IN)	Width (IN) Length (IN)	Shipped Qty(LBS)
121629081	KAISER ALUMINUM	2 2 9 1 0 3 B 7		_	48.0000	144.0000	111.9744

These items are controlled by the U.S. Government and authorized for export only to the country of ultimate destination for use by the ultimate consignee or end-user(s), either in their original form or after being incorporated into other items, without first obtaining approval from the U.S. Government or as otherwise authorized by U.S. law and regulations.

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. All claims for defective material are waived unless made in writing 10 MeV. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned for credit.

Perviewed by Authorized Castle Metals Representative:

SHIP TO:

A M CASTLE & CO 3050 SOUTH HYDRAULIC WICHITA, KS 67216

SOLD TO:

AM CASTLE & CO-SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

1/5EA ALUMINUM

Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

# CERTIFIED TEST REPORT

Serial Number 4470335

CUSTOMER PO NUMBI	ER: V	VORK PACKAGE:	CUSTOMER 771029	PART NUMBER		HIP RUN/LO 103981/2		ONTRACT NUMBER:	COOP THES OF A THUS THEM SHOW AND THE PROTECTION
KAISER ORDER NO: 1239844-1	www.columbia	SHIP DATE:	ALLOY: 17 2024	CLAD: BARE	TEMPER		UCT DESCRIPT Flat Sheet		access to access to the contract of the contra
WEIGHT SHIPPED:	QUANTIT 30 PCS		СК В/L #: 67919	GAUGE: 0.1600	IN ( 4.0640 MI	48.00	(1219.2 MM)	LENGTH: 144.000 IN	(3657.6 MM)

MHU 2132104: LOT 229103B7: 30 pieces;

Certified Specifications

AMS 4035/RevL CMMP 025/RevV AMS-00-A-250/4/RevB

ASTM B 209/Rev14

Test Code: 1504

Lot: 229103B7

Cast 486

Drop 19

**Test Results** 

Ingot 1

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Yield KSI (MPA) Elongation % Ultimate KSI (MPA) Dir / # Tests Temper Tensile: 22.2:22.9 11.1:11.6 25.5:25.6 LT / 2 (Min:Max) (77:80) (176:177) 21.7:21.7 42.3:42.4 67.6:67.6 LT / 2 (Min:Max) T42 (292:292) (466: 466) 9.6:11.5 55.0:55.3 67.2:69.4 LT / 2 (Min:Max) T62 (379:381)(463:479)

> (ASTM E112) (EN 2002-8)

Grain Size(ASTM No.):

5.5

(ASTM E1251)

OTHER ZR TI CR ZN MG CU MN FE SI Chemistry: TOT 0.06 0.03 0.01 0.00 1.3 0.01 0.06 4.6 0.57 Actual(wt%) 0.06 0.21



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# CERTIFIED TEST REPORT

Serial Number 4470335

Trentwood Works - Spokane, WA 99215 Phone: (800) 367-2586

## ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	Ti	V	ZA	OTHER	MAX
2024 MIN(wt%) MAX(wt%)	0.00	0.00	3.8 4.9	0.9	1.8	0.00 0.10 temainder	0.25	0.00	0.00	0.00	EACH	0.05 0.15

ORDER COMMENTS AMC A92024-50 R 20

# TEST NOTES

Grain Size Test (ASTM E112, EN 2002-8)) (Etchant Used: Barker's: Magnification: 100%; Sample Location: Head of the lot!

# CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISD 9001, AS9100, and ISO 14001 certified, and hereby certifies that a material shipped ender this order.

\* has been inspected, tested, and found to be in conformance with the requirements of the specifications induced here in a local content and desired expected expensions applicable specifications. For material to expected our side specification limits, machanical properties or as shown herein and chamical composition means specification requirements. Repeting diorgation values have been regarded as alongation at footure.

\* was melted in the United States of America or a qualitying country per DEARS 225.872-1(a), was manufactured in the United States of America, and means the requirements of DPARS 252.225 for domain content.

\* was melted in the United States of America of a dealying underly per order of the United States of America of a dealying underly per order of domestic content.

\* has been thermally processed in compliance with AMS 2772, where applicable.

\* is maccury free, within the limits of deaction of ASTM 51215 (< topm).

\* is in compliance with RoHS 2, European Union Directive 20 11/55/50.

\* is in compliance with European Chamics Agency, ECHA, REACH regulations, (50) No 1907/2006, and Kaiser regularly monitors these regulations for updates.

\* is free of Conflict Mismals, as defined in Section 15.2 of the Dodd-Frank Act.

\* Is free of weld repoir.

\* mants the reporting requirements of EN10204, Type 3.1.

\* mants the reporting requirements of EN10204, Type 3.1.

\* mants the reporting requirements of the shown on Keiser Aluminum's standard general terms and conditions of sale. Test reports are on the samination. Test reports shall not be reproduced except the Any warranty is limited to that shown on Keiser Aluminum's standard general terms and conditions of sale. Test reports on the certificate may be punished as a felony under federal law.

\*Full Authorities on the Keiser Aluminum leboratory. The recording of tales, flictitious or freudurent statements or entities on the certificate may be punished as a felony under federal law.



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70	75 IAR	142	1.000x0250 PO/BATCH NO.: 038929/505/4/
MATERIAL CERT REC'D:  QUANTITY RECEIVED:  QUANTITY INSPECTED:  QUANTITY REJECTED:	12	5	THICKNESS ORDERED: 0.250 THICKNESS RECEIVED: 0.250 SHEET SIZE ORDERED: V/A SHEET SIZE RECEIVED: V/A
DESCRIPTION	(Ch	CR neck (N)	COMMENTS
SURFACE DAMAGE	Y_	N	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(X)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	AM5-00-A-250/12
CORRECT THICKNESS	M	N	
PHOTO REQUIRED	Y	(2)	
CORRECT REF # TO LINK CERT	8	N	HIST # 195976BC
ORRECT MATERIAL IDENTFICATION	(A)	N	
CORRECT M# ON THE MATERIAL	(1)	N	
DOES THIS MATERIAL REQUIRE	~	(3)	

CUT SAMPLE PIECE OF	MATERIAL A			SS CHECK.	
TYPE OF MATERIAL SIZE OF TEST SAMPLE HARDNESS / DUROMETER READING	HRC	HRB	DUR A	DUR D	WEBSTER

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)
INSPECTED BY:	DAS 11	SIGNED OFF BY:
DATE:	9-89MAR 1 4 2018	DATE:

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

DOES THIS REQUIRE AN EXTRUSION REPORT

# SPECIFICATION CONTROL DRAWING

3

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PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE SPECIFICATION: 8

QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209

PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

SPECIFICATION:

QQ.A.250/13 OR AMS-QQ-A-250/13 OR AMS 4048 / 4049 OR ASTM B209

M7075T6S TTT X W.WWW |

B PART NUMBER:

1

WHERE ".TTT" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M707516S.063 EG. 3.5" WIDE BY 0.500" THICK PLATE = M707516S.500X3.500

TIT BY 4FT BY 10FT FOR SHEET ♠ PREFERRED SIZE:

REV. B 17.05.05 10.11.08 RF DART AEROSPACE LTD
CP HAWKESBURY, ONTARIO, CANADA
ML DRAWING NO.
LL M7075T6S SHEET 10
VWM TITLE
DS-M 7075-T6 SHEET/PLATE SPEC N DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA
DRAWING NO.
RE
M7075T6S
SHEET CP ADD: REF TO "PLATE", "T651" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149) DESIGN DRAWN CHECKED **APPROVED** 

SHEET 1 OF 1

2017 JUN 19 47 ECN 17-574

RELEASED

17.05.05

MFG. APPR. APPROVED DE APPR.

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OR

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